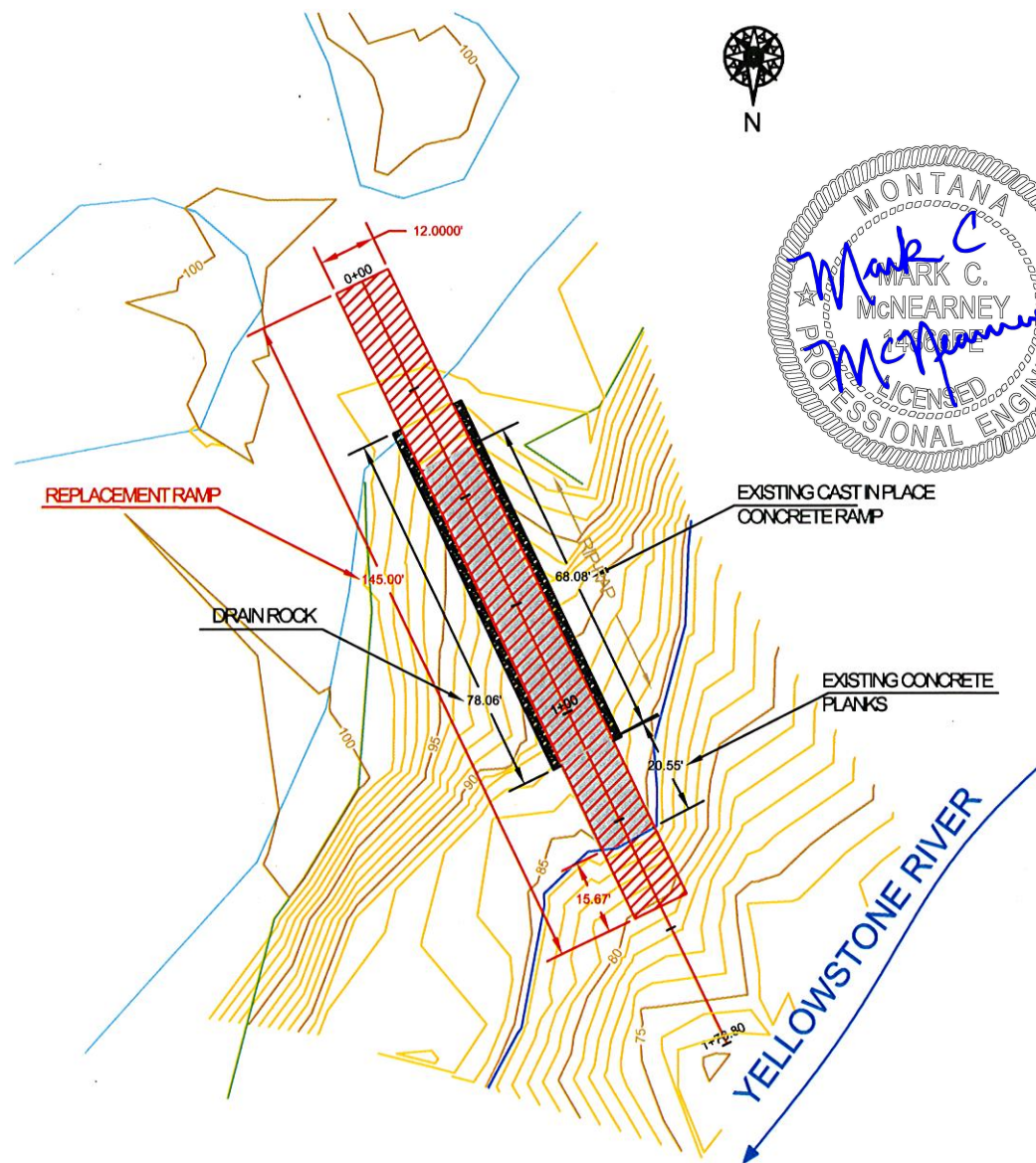


Project Notes:

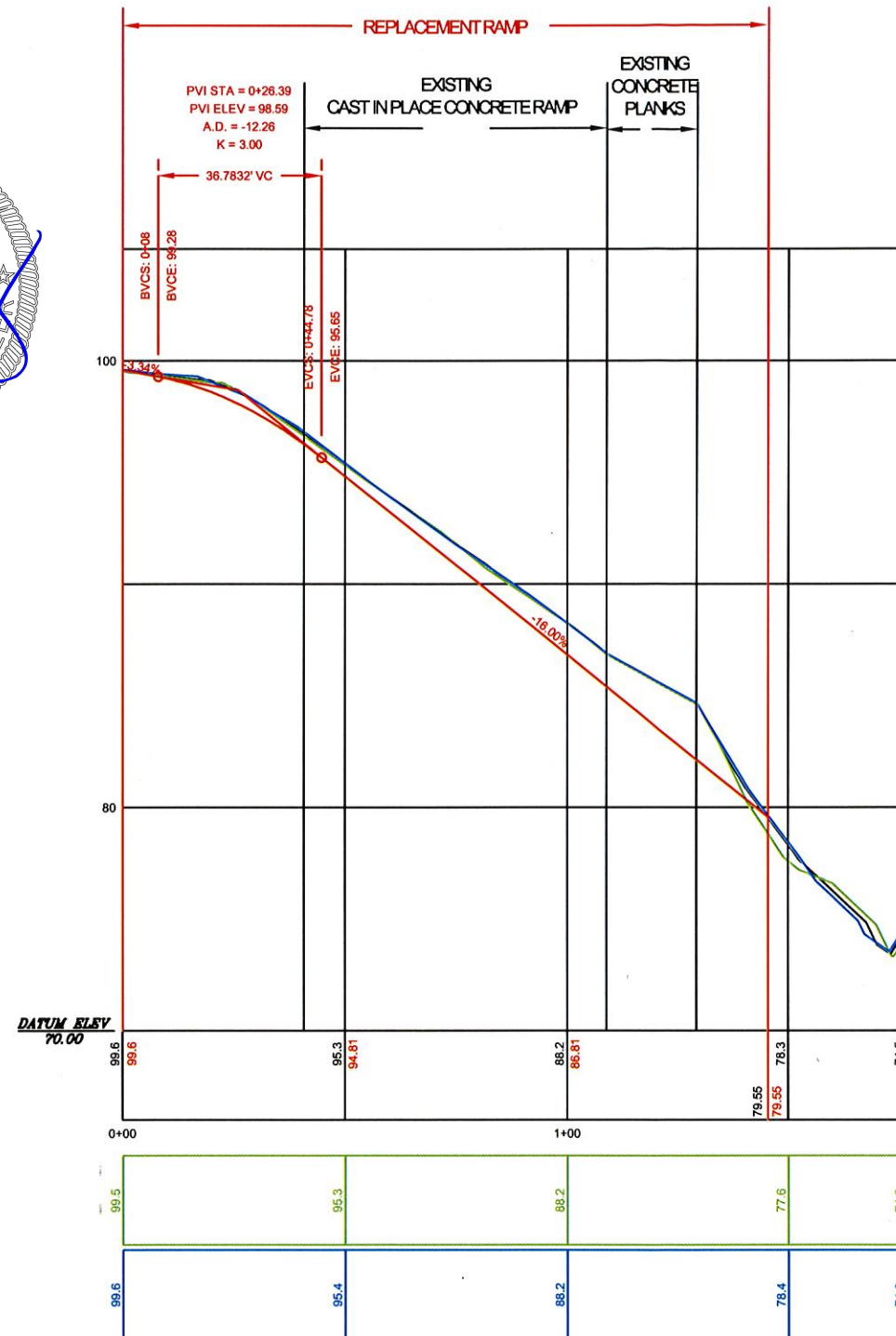
- 1) Remove existing boat ramp (12' x 88 6') and dispose of in a safe and legal manner.
- 2) Temporarily remove rip-rap as necessary to excavate to new ramp grade. Rip-rap shall be placed adjacent to the ramp near its previous location to the satisfaction of the Project Engineer.
- 3) Excavate to new ramp sub-grade, and place gravel to grade. Cut and fill slopes shall be graded at 3:1 from the edge of drainrock to existing river bank slopes.
- 3) The actual lengths of the cast-in-place and push-in ramp sections may vary due to water levels. Unit costs will be used to adjust for compensation.
- 4) Cast - in - place ramp grade includes a vertical curve from ramp grade to parking area grade.
- 5) Remove all construction debris from site, and blend parking grades to new boat ramp, and replace the surface gravel on the parking area, as necessary.
- 6) Observe best management practices by utilizing straw wattle or silt fence to control runoff.



SIDNEY BRIDGE FAS SITE PLAN



LEGEND	
	MAJOR CONTOUR (5 FOOT INTERVAL)
	MINOR CONTOUR (1 FOOT INTERVAL)
	ROADS AND PARKING
	CENTERLINE BOAT RAMP
	EXISTING BOAT RAMP
	REPLACEMENT RAMP
	RIVER ELEVATION (11.27.12)
	DRAIN ROCK



SIDNEY BRIDGE FAS SITE PROFILE

LEGEND	
	CENTERLINE OF EXISTING BOAT RAMP
	BOAT RAMP PROFILE LEFT
	BOAT RAMP PROFILE RIGHT
	CENTERLINE OF REPLACEMENT BOAT RAMP

J. Kevin McDonnell 12.2012
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 CHECKED BY: DATE:

REVISED BY: DATE:
 APPROVED BY: DATE:

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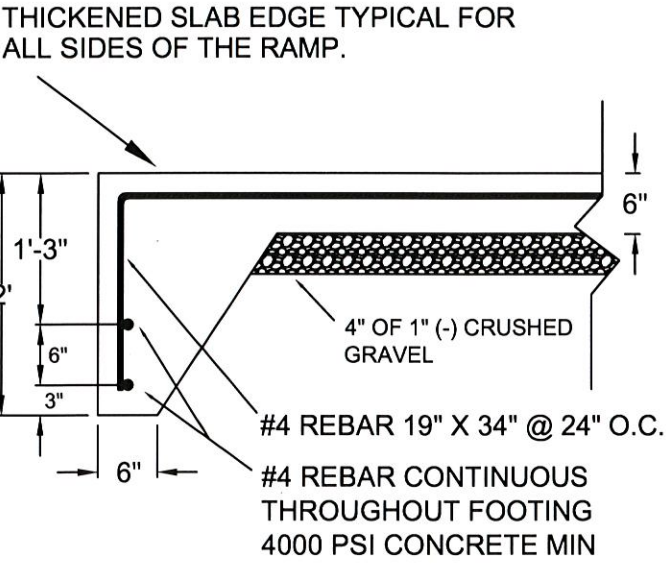


Montana Fish & Wildlife

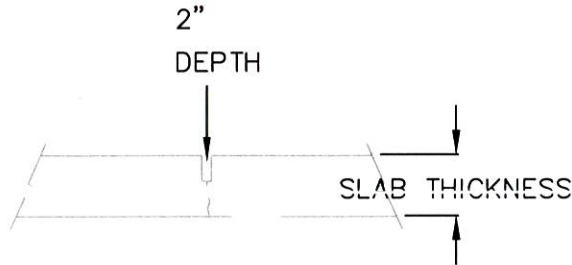
Sidney Bridge FAS Boat Ramp Replacement
 near Sidney, MT



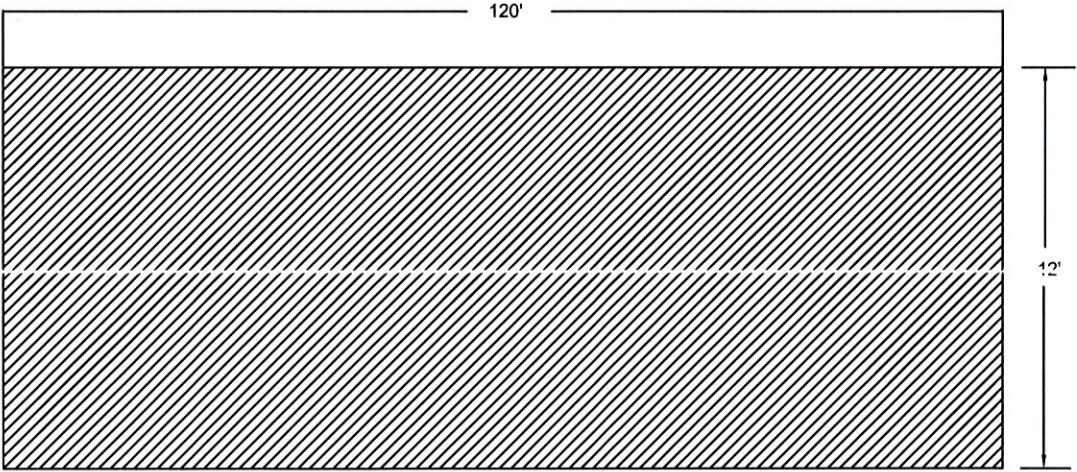
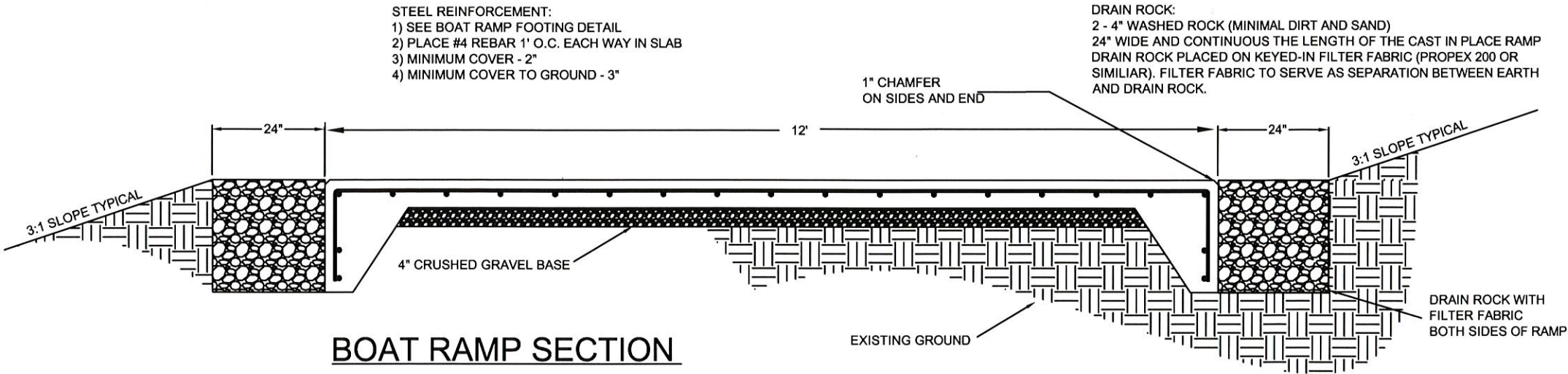
SHEET: 1 of 3



BOAT RAMP FOOTING DETAIL



CONTROL JOINT DETAIL - 15' O.C.
SAW CUT CONTROL JOINT



CAST-IN-PLACE CONCRETE BOAT RAMP
NOT TO SCALE PLAN VIEW

- NOTES:
1. ANGLE GROOVES AT 30 DEGREES DOWNWARD IN THE DIRECTION OF STREAMFLOW OR DOWNWIND SIDE OF RAMP ON LAKES.
 2. THE GROOVES ARE 1/2" DEEP. GROOVING TOOL WILL BE FURNISHED BY FWP.

J. Kevin McDonnell 12.2012
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CHECKED BY: DATE:

REVISED BY: DATE:
APPROVED BY: DATE:

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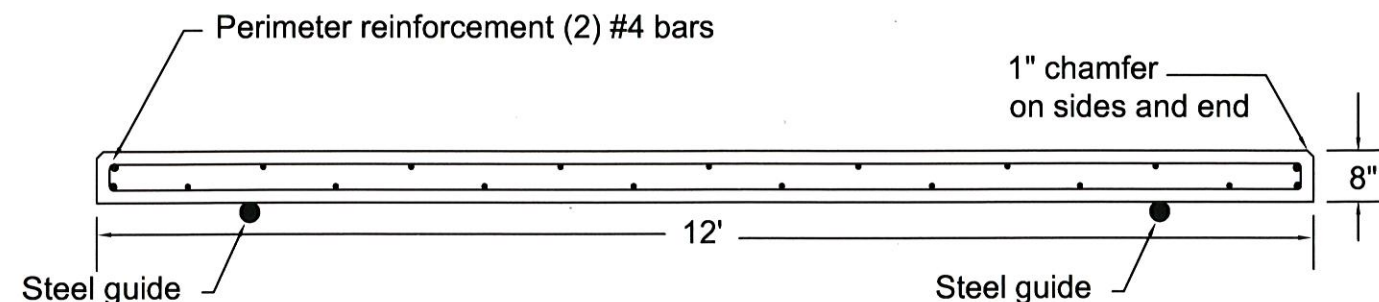


**Montana Fish,
Wildlife & Parks**

Sidney Bridge FAS Boat Ramp Replacement
near Sidney, MT



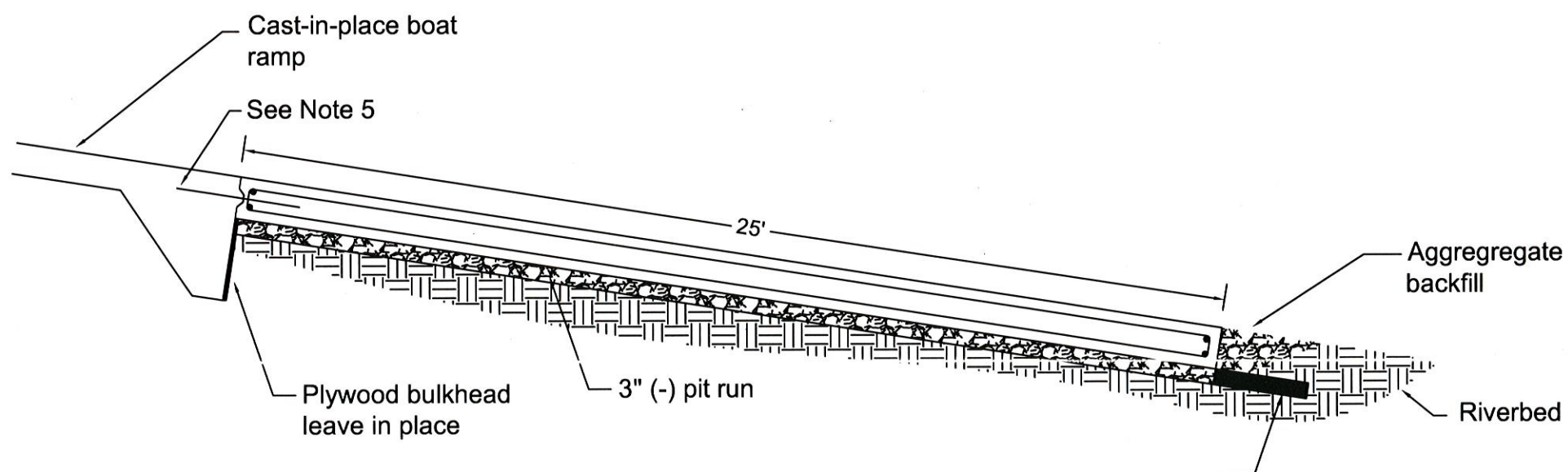
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2 of 3



PUSH IN SLAB CROSS SECTION
NOT TO SCALE

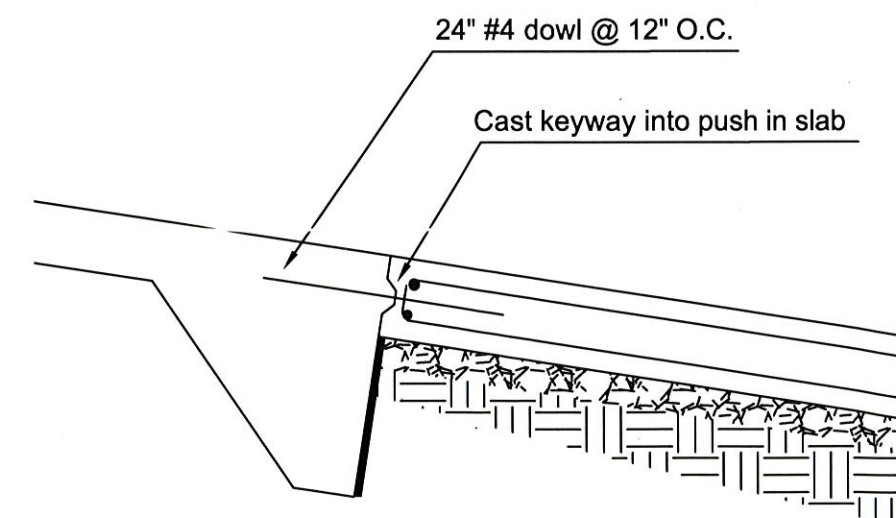
Notes:

- 1) Form push-in slab on boat ramp grade.
- 2) Install push-in slab to match as evenly as possible to river bank elevations.
- 3) Place sub grade material into the water so the push in slab is fully supported by the sub grade when it is installed.
- 4) Reinforcement: 2 mats consisting of #4 Grade 40 rebar 2' o.c. each way, offset mats 1', allow 2" of concrete cover, each bar shall have a 4" hook at the perimeter and be tied to the perimeter bars.
- 5) Place 24" #4 rebar dowels at 12" o.c. through keyway cast in push in slab.
- 6) A plastic barrier is used as a separation between the sub grade and concrete when it is poured.
- 7) 3" Sched 80 steel pipes, or other approved sections, shall be placed at the bottom of the slab elevation extending past the final end position of the slab, and used to guide the slab into position. Steel guides may be removed after slab installation.
- 8) The push in slab finish shall have the same finish as the boat ramp.FWP will provide grooving tool.
- 9) Allow seven (7) days of curing time before the push in slab is installed.
- 10) Backfill the sides and end of the slab with clean aggregate.
- 11) Above water cast-in-place ramp is installed after below water push-in section is installed. Lengths of the slabs may vary according to water levels, and compensation will be based on the unit cost as bid.



PUSH IN SLAB PROFILE SECTION
NOT TO SCALE

Steel guide section to be place at ramp grade, and to extend from under the slab at the location on grade where the slab is constructed to a point beyond the final location of the end of the slab. Guide may be removed after the slab is positioned.



CONNECTION DETAIL
NOT TO SCALE

J. Kevin McDonnell	12.2012				
DRAWN BY:	DATE:	REVISED BY:	DATE:	APPROVED BY:	DATE:
CHECKED BY:	DATE:	APPROVED BY:	DATE:	APPROVED BY:	DATE:



**Montana Fish,
Wildlife & Parks**

Sidney Bridge FAS Boat Ramp Replacement
near Sidney, MT



SHEET:
3 of 3